

Guidelines for planting of trees in Green Belt

The State Environment Impact Assessment Authority (SEIAA) in its 43rd meeting held on 31.12.2012 has formulated the following 'Guidelines for Planting Trees in Green Belts':

- Trees in urban areas can directly and indirectly affect local air quality by altering the urban atmospheric environment. Trees store carbon; thereby preventing its leakage into the atmosphere, remove harmful gases (e.g. NO_x , SO_x , Co and Pb) and particulate matter. Tree planting in urban areas is one of the strategies under the Green India Mission for adapting to climate change.
- Urban tree management strategies that help to improve air quality include:
 - Planting long-lived trees, low maintenance, moderate to fast growing species that are large at maturity and matched to site conditions;
 - Planting trees to shade parked cars as they reduce vehicular volatile organic emissions
 - Plant evergreen trees for year-round removal of particulate matter
- Punjab Agricultural University, Ludhiana has delineated agro-climatic zones in the State, the details of which are as under:
 - Agro climatic zones of Punjab

Sr. No.	Agro climatic Zone	Districts	Agro met Field Unit (AMFU) Location
1	Sub-mountain undulating zone	Gurdaspur and Hoshiarpur	Gurdaspur
2	Undulating plain zone	Ropar & Nawanshahr	Kandi/Ballowal
3	Central plain zone	Amritsar, Taran Tarn, Kapurthala, Jalandhar,	Ludhiana

		Ludhiana, Fatehgarh Sahib, Sangrur and Patiala	
4	Western plain zone	Ferozpur and Faridkot	Faridkot
5	Western zone	Moga, Mansa, Sangrur & Barnala	Bhatinda

- Some of the important trees that meet the above mentioned criteria have been identified for different agro-climatic zones of Punjab and, are listed below for guidance of project developers. Due importance may be given to these tree species while developing projects.

Zone 1. Bombax ceiba, Holoptelia integrifolia, Toona ciliata, Mangifera indica, Grevillea robusta, Melia azedarach, Terminalia bellirica, Terminalia arjuna, Schleicheria trijuga, Pterospermum acerifolium, Cassia fistula, Ficus religious, Ficus benghalensis, Syzigium cumini, Ficus glomerata, Mimusops elengi, Sterculia alata

Zone 2. Ficus infectoria (Syn. F. virens), Holoptelia integrifolia, Terminalia arjuna, Terminalia bellirica, Schleicheria trijuga, Swietenia mahogani, S. macrophylla, Melia azedarach, Grevillea robusta, Bombax ceiba, Putranjiva roxburgii, Mangifera indica, Chukrasia tabularis, Pterospermum acerifolium, Cassia fistula, Ficus religious, Ficus benghalensis, Syzigium cumini, Anthocephalus cadamba, Ficus glomerata, Michelia champaca, Mimusops elengi, Sterculia alata

Zone 3. Ficus infectoria, Terminalia arjuna, Terminalia bellirica, Schleicheria trijuga, Melia azedarach, Grevillea robusta, Bombax ceiba, Putranjiva roxburgii, Chukrasia tabularis, Ficus religious, Ficus benghalensis, Syzigium cumini, Anthocephalus cadamba, Delonix regia, Ficus glomerata, Michelia champaca, Mimusops elengi, Sterculia alata

Zone 4. Terminalia arjuna, Melia azedarach, Pongamia pinnata, Albizia spp., Ailanthus excelsa, Kigelia pinnata, Acacia auriculiformis, Azadirachta indica, Cassia fistula, Tecomella undulata, Cassia siamea, Ficus religiosa, Ficus benghalensis, Syzigium cumini, Casuarina equisetifolia, Delonix regia, Ficus glomerata, Michelia champaca, Mimusops elengi, Sterculia alata

Zone 5. Terminalia arjuna, Melia azedarach, Pongamia pinnata, Albizia spp., Ailanthus excelsa, Kigelia pinnata, Acacia auriculiformis, Azadirachta indica, Cassia fistula, Tecomella undulata, Cassia siamea, Ficus religiosa, Ficus benghalensis, Syzigium cumini, Ficus glomerata

- Suggested Tree Species for planting in Punjab

Sr. No.	Botanical names	English names	Local names	Zone
1	Acacia auriculiformis	Australian wattle	Australian kikar	4,5
2	Ailanthus excelsa	Tree of heaven	Maharukh	4,5
3	Albizia spp	East indian Walnut	Siris	4,5
4	Anthocephalus cadamba	Wild cinchona	Kadamb	2,3
5	Azadirachta indica	Margosa tree	Neem	4,5
6	Bombax ceiba	Silk cotton tree	Simal	1,2,3
7	Cassia fistula	Indian laburnum	Amaltas	1,2,4,5
8	Cassia siamea	Yellow cassia	Kassod	4,5
9	Casuarina equisetifolia	Red beefwood	Jangli saru	4,5
10	Chukrasia tabularis	Indian redwood	Chikrasi	2,3
11	Delonix regia	Flame tree	Gulmohar	3,4
12	Ficus benghalensis	Banyan tree	Bor	1,2,3,4,5
13	Ficus glomerata	Cluster fig	Goolar	1,2,3,4,5
14	Ficus infectoria(Syn F.virens)	White fig	Pilkhan	2,3
15	Ficus religiosa	Peepal tree	Pipal	1,2,3,4,5
16	Grevillea robusta	Silver oak	Silver oak	1,2,3
17	Holoptelia integrifolia	Indian elm	chilbil/kanju	1,2
18	Kigelia pinnata	Sausage tree	Thar Phanoos	4,5
19	Mangifera indica	Mango	Amb	1,2
20	Mangifera indica	Lac tree	Kusum	1,2,3
21	Melia azedarach	Indian lilac	Drek	1,2,3,4,5

22	<i>Michelia champaca</i>	Golden/Fragrant champak	champak	2,3,4
23	<i>Mimusops elengi</i>	Indian Medlar	Maulsiri	1,2,3,4
24	<i>Pongamia pinnata</i>	Indian beech	Papri	4,5
25	<i>Pterospermum acerifolium</i>	Maple leaved bayur	Kanak champa	1,2
26	<i>Putranjiva roxburgii</i>	Indian amulet plant	Putranjiva	2,3
27	<i>Sterculia alata</i>	Buddha's coconut		1,2,3,4
28	<i>Swietenia macrophylla</i>	Large leaved mahogany	Mahogany	2
29	<i>Swietenia mahogani</i>	Spanish mahogany	Mahogany	2
30	<i>Syzgium cumini</i>	Indian blackberry	Jamun	1,2,3,4,5
31	<i>Tecomella undulata</i>	Desert teak	Lahura	4,5
32	<i>Terminalia arjuna</i>	Arjun tree	Arjan	1,2,3,4,5
33	<i>Terminalia bellirica</i>	Belleric Myrobalan	Behada	1,2,3
34	<i>Toona ciliata</i>	Red cedar	Tun	1